

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
(Not for submission under 37 CFR 1.99)

|                        |              |            |
|------------------------|--------------|------------|
| Application Number     |              | 10821390   |
| Filing Date            |              | 2004-04-09 |
| First Named Inventor   | Mark Wallace |            |
| Art Unit               | 2611         |            |
| Examiner Name          | WONG, LINDA  |            |
| Attorney Docket Number | 040319       |            |

**U.S.PATENTS**

| Examiner Initial* | Cite No | Patent Number | Kind Code <sup>1</sup> | Issue Date | Name of Patentee or Applicant of cited Document | Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear |
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| /L.W./            | 1       | 6314147       |                        | 2001-11-06 | Liang, et al.                                   |  |
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|                   | 7       | 6760388       |                        | 2004-07-06 | Ketchum, et al.                                 |  |
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| /L.W./ | 9  | 6801790 |  | 2004-10-05 | Rudrapatna       |  |
|        | 10 | 6816555 |  | 2004-11-09 | Sakoda           |  |
|        | 11 | 6862271 |  | 2005-03-01 | Medvedev, et al. |  |
|        | 12 | 6940917 |  | 2005-09-06 | Menon, et al.    |  |
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|        | 14 | 7020110 |  | 2006-03-28 | Walton, et al.   |  |
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| /L.W./ | 20 | 7200631 |  | 2007-04-03 | Mallaender, et al. |  |
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|        | 22 | 7317750 |  | 2008-01-08 | Shattil            |  |
| ↓      | 23 | 7359466 |  | 2008-04-15 | Huang, et al.      |  |

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## **U.S. PATENT APPLICATION PUBLICATIONS**

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| /L.W./            | 1       | 20040002364        |           | 2004-01-01       | Trikkonen, et al.                               |  |
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|        | 8  | 20050249159 |  | 2005-11-10 | Abraham, et al. |  |
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| ↓      | 11 | 20060274844 |  | 2006-12-07 | Walton, et al.  |  |

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**FOREIGN PATENT DOCUMENTS**

| Examiner Initial* | Cite No | Foreign Document Number <sup>3</sup> | Country Code <sup>2</sup> | Kind Code <sup>4</sup> | Publication Date | Name of Patentee or Applicant of cited Document | Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear | T <sup>5</sup>           |
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| /L.W./            | 1       | 2111619                              | RU                        |                        | 1998-05-20       | Kvehlkomm Inkorporejt                           |  | <input type="checkbox"/> |
| /L.W./            | 2       | 2116698                              | RU                        |                        | 1998-07-27       | Fuba Automotive Gmbkh                           |  | <input type="checkbox"/> |
| /L.W./            | 3       | 1220506                              | EP                        |                        | 2002-07-03       | Kabushiki Kaisha Toshiba                        |  | <input type="checkbox"/> |

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| /L.W./ | 4 | 1396956  | EP |  | 2004-03-10 | Mitsubishi Electric Info. Technology Centre |  | <input type="checkbox"/> |
|        | 5 | 01076110 | WO |  | 2001-10-11 | Qualcomm Incorporated                       |  | <input type="checkbox"/> |
|        | 6 | 02078211 | WO |  | 2002-10-03 | Qualcomm Incorporated                       |  | <input type="checkbox"/> |
|        | 7 | 03015334 | WO |  | 2003-02-20 | Nokia Corporation                           |  | <input type="checkbox"/> |
|        | 8 | 04038984 | WO |  | 2004-05-06 | Qualcomm Incorporated                       |  | <input type="checkbox"/> |
| ↓      | 9 | 04038985 | WO |  | 2004-05-06 | Qualcomm Incorporated                       |  | <input type="checkbox"/> |

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## **NON-PATENT LITERATURE DOCUMENTS**

| Examiner Initials* | Cite No | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published. | T5                       |
|--------------------|---------|---|--------------------------|
| /L.W./             | 1       | INTERNATIONAL SEARCH REPORT-PCT/US05/008738, INTERNATIONAL SEARCH AUTHORITY-EUROPEAN PATENT OFFICE-7-6-05   | <input type="checkbox"/> |
| /L.W./             | 2       | WRITTEN OPINION-PCT/US05/008738, INTERNATIONAL SEARCH AUTHORITY-EUROPEAN PATENT OFFICE-7-6-05   | <input type="checkbox"/> |
| /L.W./             | 3       | INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY-PCT/05/008738, INTERNATIONAL BUREAU OF WIPO, GENEVA SWITZERLAND-10-11-06  | <input type="checkbox"/> |

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|        | 5  | BEM et al., "Smart Antennas for Mobile Communications Systems," INTERNATIONAL CONFERENCE ON MICROWAVES, RADAR AND WIRELESS COMMUNICATIONS, Vol.3, MAY 22, 2000, pgs.120-130, XP010537479  | <input type="checkbox"/> |
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|        | 11 | LAROA R et al., "Enhanced Opportunistic Beamforming," VEHICULAR TECHNOLOGY CONFERENCE, 2003. VTC 2003-FALL. IEEE 58TH ORLANDO, FL, USA 6-9 OCT. 2003, pgs.1762-1766, XP010702878  | <input type="checkbox"/> |
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| ↓      | 14 | PAN, et al., "Dynamic Sub-channel Allocation with Adaptive Beamforming for Broadband OFDM Wireless Systems," IEEE Global Telecommunications Conference, 2002. GLOBECOM '02. Taipei, Taiwan, Nov. 17-21, 2002, New York, NY, Nov. 17, 2002, Vol. 1, pp. 711-715. | <input type="checkbox"/> |

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| /L.W./ | 15 | IEEE Std. 802.11a-1999, Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications, Amendment 1: High-Speed Physical Layer in the 5 GHz Band            | <input type="checkbox"/> |
| /L.W./ | 16 | IEEE Std. 802.11g-2003, Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications, Amendment 4: Further Higher Data Rate Extension in the 2.4 GHz Band | <input type="checkbox"/> |
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## **EXAMINER SIGNATURE**

|                    |              |                 |            |
|--------------------|--------------|-----------------|------------|
| Examiner Signature | /Linda Wong/ | Date Considered | 07/30/2009 |
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